

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA

DOCKET NO. 2018-318-E

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|--|---|------------------------------|
| In the Matter of |) | REBUTTAL TESTIMONY OF |
| |) | KELVIN HENDERSON FOR |
| Application of Duke Energy Progress, LLC for |) | DUKE ENERGY PROGRESS, |
| Adjustments in Electronic Rate Schedules and |) | LLC |
| Tariffs and Request for an Accounting Order |) | |

1 **I. INTRODUCTION AND PURPOSE**

2 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND**
3 **CURRENT POSITION.**

4 A. My name is Kelvin Henderson and my business address is 526 South
5 Church Street, Charlotte, North Carolina. I am Senior Vice President of
6 Nuclear Operations for Duke Energy Corporation (“Duke Energy”), with
7 direct executive accountability for Duke Energy’s North Carolina nuclear
8 stations, including Duke Energy Progress, LLC’s (“DE Progress” or the
9 “Company”) Brunswick Nuclear Station (“Brunswick”) in Brunswick
10 County, North Carolina; the Harris Nuclear Station (“Harris”) in Wake
11 County, North Carolina; and Duke Energy Carolinas, LLC’s (“DE
12 Carolinas”) McGuire Nuclear Station, located in Mecklenburg County,
13 North Carolina.

14 **Q. DID YOU PREVIOUSLY FILE DIRECT TESTIMONY IN THIS**
15 **PROCEEDING?**

16 A. Yes, I did.

17 **II. PURPOSE AND SCOPE**

18 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

19 A. My testimony will respond to the direct testimony of ORS witness Willie
20 J. Morgan of the South Carolina Office of Regulatory Staff (the “ORS”)
21 ~~and Nucor Steel (“Nucor”) witness Billie S. LaConte.~~ Specifically, I
22 respond to ORS Witness Morgan’s ~~and Nucor Witness LaConte’s~~
23 recommendation to remove the Company’s request to adjust depreciation

1 and amortization expenses to establish a reserve for end of life nuclear
 2 costs not captured in its decommissioning studies¹². I also respond to
 3 Witness Morgan's recommendation to exclude \$17.83 million of nuclear
 4 inventory from rate base.³

5 **III. NUCLEAR RESERVE**

6 **Q. WHAT ~~ARE IS~~ ORS WITNESS MORGAN ~~AND NUCOR WITNESS~~**
 7 **~~LACONTE~~ RECOMMENDING AS IT PERTAINS TO THE**
 8 **ESTABLISHMENT OF RESERVE FOR END OF LIFE NUCLEAR**
 9 **COSTS?**

10 A. ~~Both~~ Witness Morgan ~~and witness LaConte~~ recommends that the
 11 Commission deny the Company's requested adjustments to establish a
 12 reserve fund and collect approximately \$2.9 million annually for end of
 13 life nuclear costs, including nuclear fuel and parts inventory, not captured
 14 in the Company's decommissioning studies. ~~Both witnesses~~ Witnesses
 15 Morgan argues that the requested reserve fund includes estimates for end
 16 of life nuclear fuel and parts inventory that are not currently known and
 17 measurable. Further, ~~both witnesses~~ he opine opines that it is not equitable
 18 for the Company's customers to pay for nuclear retirement costs when the
 19 date of retirement of the nuclear units is currently uncertain.

¹ Direct Testimony of Willie J. Morgan pp.3-4

² ~~Direct Testimony of Billie S. LaConte pp.3, 25-26~~

³ Direct Testimony of Willie J. Morgan p.7

1 **Q. DO YOU AGREE WITH ~~THEIR~~HIS RECOMMENDATION?**

2 A. No, I do not. The establishment of the end of life nuclear reserve is in the
3 best interest of today's customers and the estimates used to determine the
4 level of reserve funding were calculated appropriately.

5 **Q. PLEASE EXPLAIN WHY THE ESTABLISHMENT OF THE**
6 **NUCLEAR RESERVE IS IN THE BEST INTEREST OF TODAY'S**
7 **CUSTOMERS?**

8 A. South Carolina customers have received and will continue to receive the
9 benefits from the strong safety and operational performance of the
10 Company's nuclear fleet. The end of life nuclear fuel and inventory costs
11 not covered in the decommissioning fund represent costs of continued
12 operations of the nuclear fleet. Our customers benefit if those costs are
13 accrued over the remaining life of the nuclear units.

14 **Q. PLEASE EXPLAIN WHY THE ESTIMATES USED TO**
15 **ESTABLISH THE END OF LIFE NUCLEAR RESERVE FUND**
16 **WERE CALCULATED APPROPRIATELY.**

17 A. The reserve fund estimate primarily consists of the remaining fuel in core
18 and inventory used to maintain the units. While ~~both~~ ORS witness
19 Morgan ~~and Nucor witness LaConte are~~ is correct that the exact end of life
20 costs are currently not known, the Company used solid principles to
21 estimate the required funds.

1 nuclear fleet has demonstrated strong safety and reliability performance
2 providing South Carolina customers with carbon free baseload generation.
3 Ensuring the availability of proper replacement and maintenance
4 components and supplies is vital to continued excellence in operations.

5 Q. ~~ARE-IS WITNESSES MORGAN AND-LACONTE-CORRECT IN~~
6 ~~THEIR-HIS ASSERTION THAT THE RETIREMENT DATE OF~~
7 ~~THE NUCLEAR UNITS IS UNCERTAIN?~~

8 A. ORS witness Morgan ~~and Nucor witness LaConte are-is~~ correct in ~~their-his~~
9 assertion that there is a licensing process, which allows the Company to
10 seek an additional 20 years of service beyond the current license
11 expiration, for the existing nuclear units. The process, known as
12 subsequent license renewal (“SLR”) was established by the Nuclear
13 Regulatory Commission. The Company has not yet filed with the NRC,
14 nor received additional license extensions from the NRC, but continues to
15 maintain the existing fleet to ensure that additional license extensions
16 remain a viable option. Until SLR is requested and granted, the current
17 license correctly bounds the end of life of each nuclear unit.

- 1 **Q. ~~ARE IS~~ WITNESSES MORGAN ~~AND LACONTE~~ CORRECT IN**
2 **INTERPRETTING THE INTEGRATED RESOURCE BASE PLAN**
3 **(“IRP”) AS A DEFINITIVE STATEMENT THAT THE LICENSES**
4 **FOR THE FOUR DE PROGRESS NUCLEAR UNITS WILL BE**
5 **RENEWED?**
- 6 A. No. The IRP is a planning and modeling tool used to establish plans for
7 meeting forecasted annual peak and energy demand, to ensure that
8 adequate capacity is available to meet requirements. The IRP is updated
9 periodically based on current forecasts and planning assumptions.
- 10 **Q. IS THE PROPOSED NUCLEAR RESERVE ACCRUAL PERIOD**
11 **BASED ON THE EXISTING LICENSE EXPIRATION DATE FOR**
12 **EACH UNIT?**
- 13 A. Yes. The proposed nuclear reserve accrual period is based on the existing
14 remaining license period for each of four DE Progress nuclear units.
- 15 **Q. IF LICENSE EXTENSIONS ARE SOUGHT AND GRANTED,**
16 **WOULD THE COMPANY CONSIDER ADJUSTING THE**
17 **ACCRUAL PERIOD?**
- 18 A. Yes. If the Company ultimately applies for and receives a license
19 extension for all or part of the existing DE Progress nuclear fleet, the
20 Company would be open to adjusting the accrual period to reflect
21 shutdown dates based on a renewed license. In fact, as Company witness
22 Bateman⁴ stated in her direct testimony, the annual accrual amount can be

⁴ Direct Testimony of Laura A. Bateman p.18